RESPONSES TO REVIEW COMMENTS
Proposed Plan for Operable Unit 8
Anaconda Copper Mine
Lyon County, NV
Date: November 2016

Responses to Walker River Paiute Tribe Comments, dated December 21, 2016
General Comments

Item	Topic	Comments	Responses
1	Plants and agriculture	The 2-foot cap is overly ambitious to meet expected standards for long term effective containment. Two feet of soil is highly unlikely to prevent plant update of heavy metals and radionuclides in native plants; the vast majority have greater than 2 feet of roots to accommodate our desert climate. With plant root zones including mine waste material, update is a concern as a release from the site that directly effects Tribal members as they utilize local plants and animals. Fact is, tribal members cannot use the plants, vegetation and cultural practices have been compromised. With wildlife known to use the site, minimal dust control and no institutional controls these effects are magnified. Adding to and cultural practices have been compromised. With wildlife known to use the site, minimal dust control and no institutional controls these effects are magnified. Adding to this, Lyon County has a reputation for inconsistent land use policies, as recently experienced by the residents living in the Comstock, that will require broad assumptions regarding future land use and site access.	**NDEP Response:** Exact depth and material composition will be discussed and decided during design phase. The comments on tribal plant use are not applicable -no one will have access to the plants that are part of the HLP covers. If land use changes then ICs will need to be reviewed to ensure human health and the environment are protected. **BLM Response:** The 2-ft cap is a minimum thickness and its final thickness won't be determined until the cap has been engineered and determined to be effective. Only shallow rooted grasses that wouldn't penetrate the HLP material would be used for a vegetative cover. The public lands portion of the Site will remain open to mineral development, however some institutional controls may be warranted to help protect human health and the environment. **EPA Response:** NDEP & CBI input. Address: - Role of plants in cover, root zones. - uptake of metals? - Tribal use of plants on-site -> prohibited access to private & BLM property. - ICs identified in FS, PP. Not only local land use controls. BLM address: access to site BLM property by tribal members for plant use. **Draft Proposed Response:** The 2-foot cap is the minimum thickness. The final thickness will be determined in the design phase. The HLP vegetative cover species will be selected to (1) have a shallow rooting depth in order to minimize root penetration into HLP material; (2) have a low soil to plant bioaccumulation potential; and (3) not be a preferred species for wildlife consumption. In addition, site access restrictions will render the human health plant consumption pathway incomplete. These factors associated with the vegetative cover will result in no adverse impacts to human and ecological receptors. Finally the site is

			private property and access is prohibited, so tribal use of plants will not be possible.
2	Cap thickness	Adding to the issues with plant update, a two-foot cover may not be adequate to provide needed vegetative cover to prevent erosion. Overly steep slopes and inadequate depth of topsoil result in limits regarding re-vegetation. Additional design documents will need to better describe the material to be used, seed mix, modeling results and monitoring efforts including moisture monitoring in and below the cap (similar to systems at BGMI and Rio Tinto).	**NDEP Response:** Design comment will be considered during design discussions and decision making. Slopes will be less steep after closure than currently. **BLM Response:** The minimum 2-ft cap must be engineered to better determine the final thickness. **EPA Response:** PP states … minimum 2 feet … exact thickness needed to address objectives … to be determined in design. Objectives such as erosion prevention … **Draft Proposed Response:** The 2-foot cover is the minimum thickness. The, actual thickness will be determined by engineering during design to meet the remedial objectives.
3	Stormwater management	The stormwater plan for the operable unit is a step in the right direction but will not be functional without a site wide plan to connect it to. Please consider this a request to develop a site wide stormwater program before the ROD is expected in rnid-2017. We consider this critical to protect the Walker River from the site.	**NDEP Response:** A site-wide stormwater system will be implemented in phases as other operable units undergo remedial action. The OU-8 system will be designed for standalone stormwater protection, and so that it will connect with other OUs' stormwater systems as they approach remedial design and action. **BLM Response:** BLM thanks you for your comment. **EPA Response:** Agencies answer … agree … resources and priorities … consider … check in with management … **Draft Proposed Response:** Agreed. A site-wide stormwater system will be implemented in phases. The OU-8 system will be designed for standalone stormwater protection. The systems for the other operable units will be connected as they approach remedial design and action.
4	Plants and agriculture	Adding to the plant update question is the unsupported and technically incorrect statements regarding agriculture in Mason Valley. There is agriculture adjacent to the site and it uses water downgradient from the site. One of the largest volume wells in the valley is the Peri and Sons Farms' fields on Luzier Lane currently closed due to elevated uranium from the mine. This well was used for decades to irrigate fields. These	**NDEP Response:** These comments are potentially more relevant to OU-7, OU-4 or OU-1. With the PP preferred alternative implementation, the groundwater threat from OU-8 is virtually eliminated. Further studies may be included in OU-4 RI, OU-7 RI, or even the OU-

		same fields and irrigation water discharge to the Wabuska Drain which flows onto our Reservation, into the Walker River and is an Operable Unit of the site. The Walker River Paiute Tribe recognizes that issues with mine waste in agriculture products and uptake of hazardous substances from mine waste in plants gathered by our Tribal members share pathways and health hazards. The EPA study by Tetra Tech often cited from 2009 was not only of inadequate scope to provide useful information, it completely disregarded pathways that directly affect Tribal members. The whitewashed explanation regarding mine waste and agriculture found in this Program Plan on page 6 regarding the mine site and agriculture is unacceptable. NDEP statements such as; "With regard to surface water, there is currently no information that indicates any impact from the Anaconda site to the Walker River has diminished the potential historical pathway for site contaminants and should be further investigated. This is the time to fill the data gaps agreeable to active stakeholders. Walker River Paiute Tribe is requesting a correction to the situation which is best described as having inadequate data for conclusions, but adequate data to support an expanded study, and would likely include follow up with NDEP and EPA to fill this important data gap to protect our community's health and economy.	1 FS. **BLM Response:** This comment is similar to BLM's earlier comment on the PP that the agriculture area to the north of the site is hydrologically connected to the Site and are downgradient from the Site, not upgradient as stated in the PP. BLM no comment Thank you for your comment **EPA Response: "**largest volume well": If it is closed, how can it be the largest volume well? Jeryl: was not closed due to uranium but because of impact in changing plume Second paragraph: Question of plant uptake of metals. Challenges PP Statement cited. References both native plants and commercial agriculture. EPA respond, approach from HRA perspective. Jeryl: but that is OU1, groundwater issue and not OU7 related. Dante: ok. Third paragraph: This is being/will be addressed in OU7. **Draft Proposed Response:** The PP preferred alternative will virtually eliminate the groundwater threat from OU-8. Further studies may be included in the OU-4 RI, OU-7 RI, or even the OU-1 FS. These comments are potentially more relevant to these future documents.
5	Wabuska Drain	The report states that OU7, the Wabuska Drain, is a higher priority. This is appreciated since this includes Tribal property, but there are currently no plans available to determine the risk from this operable unit on our property or at its confluence with the Walker River (and subsequent effect on Weber Reservoir and Walker Lake). We would like to use this opportunity to request a plan be in place and reviewed for in-stream equipment to be installed before the start of the 2017 irrigation season.	**NDEP Response:** This comment is more appropriate for OU-7 discussions, not OU-8 closure. **BLM Response:** This comment is outside the scope of this PP. **EPA Response:** Will be addressed pursuant to OU7. **Draft Proposed Response:** This comment is more appropriate for OU-7 discussions, not the OU-8 Proposed Plan.

RESPONSES TO REVIEW COMMENTS
Proposed Plan for Operable Unit 8
Anaconda Copper Mine
Lyon County, NV
Date: November 2016

Responses to Walker River Paiute Tribe Member Comments, undated
General Comments

Item	Topic	Comments	Responses
6	Human health and the environment	The health problems that the contaminant waste left by large and small companies are my concern. Not only are our youth and future, but also our elders are affected long term by contamination of our groundwater, earth and air. While a sense of relief is noted by the proposed action doubt is present because often good intention are deferred by greedy officials. Hope for a successful conclusion of future mining and other environmental actions.	**NDEP Response:** Human health and the environment will be better protected with the PP Preferred Alternative. **BLM Response:** Thank you for your comment. **EPA Response:** General agencies reply. Confident that proposed/selected remedy … addresses potential health/environmental risk … Recognize challenges in securing funding … confident/optimistic for successful outcome … **Draft Proposed Response:** The Agencies are confident that the proposed/selected remedy will address potential health/environmental risks for OU-8. The challenges associated with securing funding are recognized, but we believe the site is a priority and are confident in a successful and expedient implementation.

Responses to Yerington Paiute Tribal Consultation Questions and Comments, dated December 14, 2016
General Comments

Item	Topic	Comments	Responses
7	Alternative selection	Were the four alternatives selected before the election?	**EPA Response:** Yes, in 2012. **Draft Proposed Response:** Yes, the four alternatives in the Proposed Plan were selected in 2012.
8	CERCLA process	Are they still viable considering the President Elect's stance on the environment?	**EPA Response:** Yes, EPA believes so and continues to proceed under the CERCLA process, which is a law that was passed through Congress. **Draft Proposed Response:** Yes, the Agencies believe so and continue to proceed under the CERCLA process, which is a law that was passed through Congress.
9	Remedial design	What is the cap made of?	**EPA Response:** Compacted soil that will prevent rain from penetrating and will divert it to the stormwater management system. If it does penetrate it will go down just a few inches and evaporate off. **Draft Proposed Response:** The cap will be made of soil, compacted to prevent rain from penetrating, which will result in diversion of surface water to the stormwater management system. Any water that does penetrate the compacted soil will go down just a few inches and evaporate off.
10	Human health and the environment	You keep referring back to the NDEP standards. Does EPA have more stringent standards?	**EPA Response:** EPA does not have mine closure regulations; it bases its cleanup standards on risk to human health and the environment. A lot of this will be determined during the design process. **Draft Proposed Response:** EPA bases cleanup standards on risk to human health and the environment. EPA does not have mine closure regulations. The specifics of the selected alternative will be determined during the design process.
11	Plants and agriculture	Will there be vegetation?	**EPA Response:** Yes and its purpose is two-fold. It will help stabilize the soil, and the root system of the plants will assist in evaporating the water off.

			Draft Proposed Response: Yes there will be vegetation on the cap to stabilize the soil and assist in evaporating water.
12	Alternative selection	If public comments differ from Tribal comments how do you proceed with selecting the remedy?	**EPA Response:** EPA does not anticipate comments that will contradict each other. There are only a few options on how to close abandoned mines. **Draft Proposed Response:** The Agencies do not anticipate varied comments. There are only a few options to address the environmental impacts of the HLPs.
13	Alternative selection	Are there other mines in NV using this approach?	**EPA Response:** Yes, these are common closure practices. **Draft Proposed Response:** Yes, these are common closure practices.
14	Alternative selection	Tribes are the ones who wanted this cleanup to begin years ago so their comments should have more consideration over Yerington politicians.	**EPA Response:** This site was overlooked so the problem is larger than is should be but by proceeding with cleanup now EPA can keep new ponds from being developed. **Draft Proposed Response:** The Agencies agree that the site was overlooked and the problem is larger than it should be. By implementing the selected alternative, measures will be implemented to cleanup the site and keep the problems from getting any larger.
15	Public comments	Will we be able to see all comments?	**EPA Response:** Yes, all comments are public record. **Draft Proposed Response:** Yes, all comments are public record.
16	Dust control	You can see clouds of alkali dust when the wind blows. Nothing has been done by BLM to protect those living near the site. Instead they just continued to issue permits to companies who were looking for gold. They did not find it and the mines were abandoned. Now the Tribe is finally speaking up and having their say. We would like more information on the human health risk. More information on the short and long term health risks for each alternative. It also seems like the dust control method, which is spraying the piles with water, would add to the issue of creating drain down fluids.	**EPA Response:** The amount of water that would be used is not enough to be an issue. **Draft Proposed Response:** The volume of water used for dust suppression is not enough to be a fluid management issue.
17	Five-Year Review	If this goes on for a long time, the site might be forgotten in 50 years.	**EPA Response:** EPA has a Five-Year Review process to review the effectiveness of the remedy. Additionally there is ongoing, regular

	process		inspections and maintenance that would uncover any issues in the interim. For example places that were eroding would be found and addressed before the Five-Year review. **Draft Proposed Response:** EPA has a Five-Year Review process to evaluate the effectiveness of the remedy. Additionally there is ongoing, regular inspections and maintenance that would uncover any issues in the interim.
18	Schedule	What is the timeline?	**EPA Response:** 2018 design complete. 2019 construction start. **Draft Proposed Response:** In 2018 the remedial design will be completed, and in 2019 the construction will commence.
19	Cost and funding	Is there a budget?	**EPA Response:** So far there is an estimate from the feasibility study. **Draft Proposed Response:** An estimate of the cost to implement and operate the preferred alternative (Proposed Plan Alternative 4) is provided in the FS as Alternative 6a/8a.
20	Cost and funding	Is there a limit to the amount of money the government will spend?	**EPA Response:** To be funded, the site has to be on the NPL and get in front of the Priority Panel. To date EPA has spent $10 million to construct ponds and wants a more permanent solution. **Draft Proposed Response:** To be funded, the site has to be on the NPL and get in front of the Priority Panels for EPA and BLM to request funding. To date EPA has spent $10 million to construct ponds and wants a more permanent solution.
21	Cost and funding	This is our land, it is everything we have. Generations of our family have been here and plan to stay. So there should be no budget. This is where our lives are. We are concerned that funding will disappear under the new Presidency. There is a history of mistrust, that our experiences are imagined. If you don't get the funding level to support the preferred alternative, how do you proceed?	**EPA Response:** EPA would wait for additional funding or prioritize and complete the work in phases. **Draft Proposed Response:** The Agencies would wait for additional funding or prioritize and complete the work in phases
22	CERCLA process	We have grave concerns about the new President and Cabinet picks and a Republican congress that has full control.	**EPA Response:** This is a high priority site and we have no reason to believe the remediation process will not continue. **Draft Proposed Response:** This is a high priority site and we have no

			reason to believe the remediation process will not continue
23	Cost and funding	Does each OU receive its own funding?	**EPA Response:** Yes. Other OUs will be funded by the PRPs. OU8 requires federal funding as the owner went bankrupt. **Draft Proposed Response:** Yes. The other Anaconda OUs will be funded by the Responsible Parties. OU8 requires federal funding as the owner went bankrupt.
24	Alternative selection	Was moving solids offsite considered?	**EPA Response:** No. **Draft Proposed Response:** No.
25	Cost and funding	If funding is received as anticipated, will the pond capacity last through construction?	**EPA Response:** Yes, this was factored in. **Draft Proposed Response:** Yes, if funded as anticipated, the current pond capacity is sufficient to last through construction.

Responses to Yerington Paiute Tribe Comments, dated December 21, 2016
Specific Comments

Item	Topic	Comments	Responses
26	Drain down fluids	The Draw down fluids are described in the document as "containing elevated Total Dissolved Solids" with the more toxic components are left unmentioned. In the HRS Documentation Record, the fluids are described as "Hazardous substances in PLS collected from these ponds include arsenic, cadmium, chromium, copper, lead, manganese, nickel, uranium, and zinc." In addition, this statement is inconsistent with Table 1. Although the elevated TDS is important to management and the description in the document brief, future discussions of the draw down fluids should be more accurate and mention the heavy metals and radionuclide issues.	**NDEP Response:** The other COCs are mentioned. This can be clarified in the ROD. **BLM Response:** TDS was used to describe the "Statement of the Problem" which are the ponds keep filling up with precipitated salts that contain heavy metals and radionuclides. Later in the document (Table 1) demonstrates the COCs that may be in the drain-down fluids. Although the document may not be written in the way the commenter would like, all concerns by the commenter are addressed in the PP. **EPA Response:** Agencies response. The purpose of the Proposed Plan is to describe the remedial alternatives – not to give an exhaustive recount of the health risk assessment. The HRA is included as … in AR … made available to public … in site repository … **Draft Proposed Response:** The purpose of the Proposed Plan is to describe the remedial alternatives. Table 1 in the Proposed Plan lists all the COCs. The Health Risk Assessment is included in the Administrative Record made available to public in the site repository.
27	Stormwater management	The document states "Site-wide stormwater connections are part of the proposed alternative; connections to the OU-8 stormwater system will be completed as adjacent areas undergo remedial action." Having only part of the site, and in this case a section within the site, have a stormwater system not connected to the site is not technically feasible. What happens at the dead ends? Will a temporary outlet be constructed to by-pass unfinished sections?	**NDEP Response:** A site-wide stormwater system will be implemented in phases as other operable units undergo remedial action. The OU-8 system will be designed for standalone stormwater protection, and so that it will connect with other OUs' stormwater systems as they approach remedial design and action. **BLM Response:** The proposed stormwater management system for OU8 will function independently until it can be connected to a site-wide system. OU8's system will terminate at open evaporation ponds that will be utilized by the other OU stormwater management systems, once completed.

			EPA Response: Technical response. Stormwater basins to hold run-off from caps … "is not technically feasible": -> I don't see why it's not technically feasible. We can say we disagree. **Draft Proposed Response:** A site-wide stormwater system will be implemented in phases with connections to individual OU stormwater system components, as other operable units undergo remedial action. The Agencies disagree, believing that the OU8 system can function independently until connected to a site-wide system.
28	Responsible party	The Mine History has no reference to the actual responsible party, BP, which wholly owns ARC. It is clearly described on previous EPA documents including the EPA website for the site (https://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/ViewByEPAID/NVD083917252). With the public well aware that BP is the responsible party, it is important for the document to be consistent; masking the actual responsible party's name is an inconsistency that reduces credibility.	**NDEP Response:** Legal documents and many other documents specify the relationship between ARC and BP; not critical to specify that relationship in the PP. **BLM Response:** The responsible party for the Anaconda portion of the Site has been determined to be ARC, not BP. EPA and BLM are pursuing ARC to pay for the cleanup of all OUs except for OU8. A PRP is not determined by public opinion, but rather by the evidence that can link a RP to the Site and hold up in a court of law. **EPA Response:** Agency response. The purpose of PP … is to describe RA's … not to provide exhaustive description of corporate … makeup … of PRP who is not even related to OU. **Draft Proposed Response:** The purpose of Proposed Plan is to describe the remedial action. The relationship between ARC and BP; and the responsible party are detailed elsewhere.
29	Mining plan	The document states "Also in 2009, a mining company, Singatse Peak Services (SPS) agreed to purchase mineral rights and surface land in OU-8, with the intent of re-processing the recoverable copper in the solids and liquids as part of an overall site-wide mining plan." It is an important fact that in 2009 SPS agreed to purchase the site but the referenced site-wide mining plan is not part of the site record and may not actually exist. It would appear that with the gap between purchase	**NDEP Response:** The agencies are continuing to work with SPS. We will not further delay environmental remedial actions while waiting for a mining plan to develop, but if SPS submits a mining plan the plan will have to accept responsibility for previous liability, and work within the agreed upon closure plan. **BLM Response:** The BLM does not consider a verbal commitment to re-mine the Site as a Reasonably Foreseeable Future Action unless

		and the absence of a plan to utilize material in OU8 for additional reprocessing that this activity is not to be considered in future plans. The reference to a "site-wide mining plan" that include OU-8 is not accurate.	some kind of assurance is made. For instance, the Site has been mined in the past and the resource is not considered mined out. The Site remains open to mineral development. If the price of copper reaches a certain level, re-mining may be profitable. Therefore, based on these assumptions, it is reasonable to assume that re-mining is likely to occur at the Site when and if copper prices increase. **EPA Response:** "is not accurate": -> PP doesn't say that such a plan was a public document. Was there an internal SPS mining plan document? Do we know? **CB&I Response:** An internal SPS mining plan does not exist as far as we are aware. **Draft Proposed Response:** The Proposed Plan references an overall site-wide mining plan, but does not state that a public document exists.
30	Rephrase text	"…work on these OUs [OU-2, OU-4b, OU-5, and OU-6] will proceed once the priority OUs have finalized the RI and FS…" This statement communicates that the OUs are complete and separate units; however, there are actions that maybe required to include these lesser priority OUs that will occur concurrently to the remediation activities of the higher priority OUs. It is suggested that this be rephrased to state that work may be completed concurrently if associated with the remediation activities of higher priority OUs.	**NDEP Response:** Good point; we can consider rephrasing the PP, or amend it for the ROD. **BLM Response:** Thank you for your comment **EPA Response:** "is suggested that this be rephrased" -> The purpose of the public comment period … comment on RAs … not edit the background sections … **Draft Proposed Response:** Thank you for your comment. The purpose of the public comment period is to provide feedback on the remedial action, not edit the background sections. The Agencies will consider rephrasing for the ROD.
31	Remedial design	It is assumed that any cap will include moisture sensors to allow confirmation of modeling/performance of the cap. This is a practice occurring at other mine sites in Nevada including the Barrick Goldstrike Mines Inc. (BGMI) facility in Elko (Zhan 2006)	**NDEP Response:** Design comment will be considered during remedial design discussions and decision making. Standard closure protocols will be followed for the remedial design and construction. **BLM Response:** Thank you for your comment **EPA Response:** To be designed in RD. Additional technical response.

			CB&I Response: The use of moisture sensors may make sense. They are relatively inexpensive, and with the limited rainfall, the sensors may provide the data to prove effectiveness. **Draft Proposed Response:** The use or not of moisture sensors will be evaluated during the remedial design phase.
32	Dust control	Dust control for the E-cell may be required for solids left by the fluids as they evaporate and should be a factor when selecting "fine-grained alluvium" for the cells. It would be assumed that O&M would include steps to reduce this issue but it should be specified in follow-up design since it is omitted in the Plan, FFS and Closure Plan.	**NDEP Response:** Design comment will be considered during design discussions and decision making. **BLM Response:** Thank you for your comment **EPA Response:** Response not provided. **Draft Proposed Response:** The Agencies recognize the need for dust control and will consider during the remedial design phase.
33	Remedial design	It is unclear how an E-cell will be closed when no longer needed or when its service life is complete.	**NDEP Response:** Design comment will be considered during design discussions and decision making. **BLM Response:** None of the E-cells will be constructed on public lands. **EPA Response:** Technical response. Whereas details to be determined in RD/RA stage … typically … Jeryl: not convinced e'cell will ultimately be used, so prefer not to opine on it. **Draft Proposed Response:** The details of an E-cell closure will be determined during the remedial design phase. Typically these units are capped and closed in place.

Responses to Yerington Paiute Tribe Comments, dated December 21, 2016
General Comments

Item	Topic	Comments	Responses
34	Cap thickness	Evapotranspiration covers are an excellent option to be considered for this site. The lower maintenance and better aesthetics of a vegetated coved are all positive qualities of the system. However, the proposed 2-foot cover will require a more complete investigation and is likely underestimating the final cover thickness. A number of factors will be used to evaluate final cover design: A. Comparable facilities and their performance. Barrick Goldstrike Mines Inc constructed an evapotranspiration (ET) cover system for the AA Leach Pad in 2000. However, unlike the 2-foot cover proposed, the system includes 1.2 meters of cover under 1.5 m of salvaged topsoil (total of 8.8 feet) (Zhan 2006). Although it is assumed that the cover material will have different properties and the BGMI facility receives more rainfall, an over 75% reduction in thickness is an unlikely estimate. B. The 2-foot cover is not appropriate for the vegetative cover: a. Erosion prevention is often cited as the major issue with ET cover systems (Breckenridge 2010). This often makes the vegetative cover critical. However, a 2-foot cover will put as much of 80% of the roots terminating, or trying to terminate, in the covered material reducing viability of the cover. A 2-foot cover may not be adequate to support needed vegetation and that vegetation will be penetrating the cover potentially reducing its viability. b. Plants with roots below the cap will bioaccumulate heavy metals associated with the waste increasing the ecological and human health risk (Garvin 2013). It is also noteworthy that once plant material uptakes heavy metals and radionuclides these hazardous components are released through use by residents, animals and as plants mature and drop leaves,	**NDEP Response:** Again, the PP preferred alternative calls for a MINIMUM 2' cover; exact thickness and material composition will be discussed and decided upon during initial design. Design comment will be considered during design discussions and decision making. Cover thickness will be appropriate for this location. Design comment will be considered during design discussions and decision making. Rooting depth is entirely dependent on the type of vegetation. This design comment may not be relevant. There will be no use of the vegetative cover. ICs will prevent access or use by humans, and animals will not prefer the type of vegetation that will compose the ET cover. **BLM Response:** The ET cover will be a minimum thickness of 2 feet. However, final thickness cannot be determined until it has been engineered to meet the required protectiveness. **EPA Response:** - PP noted minimum thickness of 2' - root zones (same as WRPT comment) **Draft Proposed Response:** The preferred alternative of the Proposed Plan specifies a minimum cover of 2 feet. The exact thickness and material composition will be engineered during the remedial design phase to meet the required protectiveness. If, during design phase discussions, the ET cover is determined to be the most effective cover type, the HLP vegetative cover species will be selected to (1) have a shallow rooting depth in order to minimize root penetration into HLP

		releases seeds or die back in winter.	material; (2) have a low soil to plant bioaccumulation potential; and (3) not be a preferred species for wildlife consumption. In addition, site access restrictions will render the human health plant consumption pathway incomplete. These factors associated with the vegetative cover will result in no adverse impacts to human and ecological receptors.
35	Stormwater management	Stormwater leaving the site has been recently well documented by residents and is evident from gullies and other erosion features throughout the site. The inclusion of stormwater management in the proposed plan is a step forward, but development of stormwater control features for one Operable Unit that is almost completely surrounded by other Operable Units is questionable. The question remains, what happens to the water when it reaches lower elevation other Operable Units? Will it be stored permanently onsite? The answer to these questions is to develop a site wide stormwater management program. The Clean Water Act requires permits for storm water discharges associated with industrial activities to waters of the United States. The EPA is managing the Yerington Anaconda Mine Site under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authority. In accordance with CERCLA, the discharge of storm water associated with sites such as the Yerington Mine Site should comply with the substantive requirements of the storm water permit program; however, CERCLA response actions are exempted by law from the requirement to obtain Federal, State or local permits related to any activities conducted completely onsite. Despite this, releases from the site are required to be controlled for a variety of reasons. In this case, even without the stormwater permit requirement, for any party otherwise liable for a release, it creates liability for damages for injury to, destruction of, or loss of natural resources including the costs of assessing such injury, destruction or loss resulting from such a release. It is generally accepted that exemption from stormwater permitting in this case is not a release from liability. Subsequently, Superfund sites generally have plans and facilities to manage stormwater. It is recommended that a site-wide stormwater plan, long overdue, be	**NDEP Response:** Design comment will be considered during design discussions and decision making. As stated in the PP and CCP OU-8 stormwater will be stored in various detention basins until it evaporates. A site-wide stormwater system will be implemented in phases as other operable units undergo remedial action. The OU-8 system will be designed for standalone stormwater protection, and so that it will connect with other OUs' stormwater systems as they approach remedial design and action. Agreed, CERCLA requirements for stormwater control will meet the intent of stormwater permits. Liability for releases is assumed. A site-wide stormwater system will be implemented in phases as other operable units undergo remedial action. The OU-8 system will be designed for standalone stormwater protection, and so that it will connect with other OUs' stormwater systems as they approach remedial design and action. Effectiveness evaluation will be discussed during the design phase. **BLM Response:** Thank you for your comment **EPA Response:** Stormwater management plan – same response as WRPT. **Draft Proposed Response:** A site-wide stormwater system will be implemented in phases. The OU-8 system will be designed for standalone stormwater protection. The systems for the other operable units will be connected as they approach remedial design and action.

		developed concurrent with the design of OU8. Without a design for the entire facility, it will be technically impossible to evaluate the effectiveness of the OU8 proposed plan in regards to surface water.	
36	Human health and the environment	The Tribe has previously commented on the Human Health Risk Assessment in December of 2012. There are a number of very important general items that must be corrected for this Risk Assessment to meet the needs of Tribal residents. These general issues include: • Overestimating security: Site fencing and other security measures fall short of what is normally expected at a site of this size and severity. Previous reviews included photos of both intruders and game animals on site, which are important factors of exposure for the entire site. • Tribal cultural practices are completely disregarded: There is mention of this issue but absolutely no inclusion of information provided by the Tribe or use of guidance documents created through Superfund programs for Tribes. The end result is a Risk Assessment that is exclusive to the non-Tribal community and disregards EPA's trust responsibility to the Tribe. • There is no Conceptual Site Model for this site: The Tribe worked with EPA to address many important issues with the Conceptual Site Model several years ago. As of the last conference call, EPA had not forwarded those modifications to BP and there appears to be no progress on this important site-wide document despite efforts by both the YPT Environmental Office and Administration. This is very unfortunate since important components of the HHRA now found lacking could be "cut and pasted" from a functioning Conceptual Site Model. • Assumptions regarding offsite conditions in the HHRA are incorrect: The data set regarding effects of dust and other transported solids offsite is very limited. In contrast, information regarding actual transport of these materials is substantial. Adding to this problem, the location of site features is misrepresented to the point of obscuring risk; the town of Yerington is adjacent to the site (not 1.5 miles from the site), or more specifically, the Anaconda Mine is	**NDEP Response:** The HHRA was recently finalized after consideration of all comments. This is not the place to comment on the HHRA. Again, design considerations will include ICs such as fencing to reduce exposure to humans and animals. There is no connection between Tribal cultural practices and OU-8 facilities. There is a site-wide CSM and separate CSMs for several of the existing OUs. The CSMs will continue to improve as additional data inform and design criteria will evolve. Again, this comment is related to the HHRA. We are proposing closure of OU-8 facilities in order to reduce the risk to residents, including Tribal members. The comment on OU-7 is not relevant for this PP. **BLM Response:** Thank you for your comment **EPA Response:** EPA response. The purpose of a CERCLA HRA … is to determine whether there exists sufficient risk to warrant RA. The HRA so determined … the proposed actions will address the potential exposure pathways … mentioned in comment. "Tribe has repeatedly requested additional offsite studies of soil and biota from EPA. EPA's continued lack of pro-active response to our request is troubling.": -> Although unrelated to OU8, the subject of this PP, EPA states for the record that: EPA objects to comment's statement that EPA has not responded to Tribe's request for offsite studies. EPA is currently funding the planning collection, analysis and evaluation of off-mine property soils within the Wabuska Drain in the YPT reservation. **Draft Proposed Response:** The Baseline Human Health Risk Assessment (BHHRA) was finalized in October 2016 and is included

		located in Yerington, and the Reservation is an "onsite" condition since OU7 includes Tribal trust property. The Tribe has repeatedly requested additional offsite studies of soil and biota from EPA. EPA's continued lack of pro-active response to our request is troubling.	in the Administrative Record made available to public in the site repository. The BHHRA identified the risks and determined that the proposed actions will address the potential exposure pathways referenced. EPA has responded to the Tribe's request for offsite studies and is currently funding the planning, collection, analysis and evaluation of off-mine property soils within the Wabuska Drain in the YPT reservation.
37	Remedial design	Capping of the piles and establishing the vegetation critical to preventing erosion on ET covers. However, this change in habitat also changes exposure to biota. As stated in the Final Feasibility Study (EPA 2016): "…if HLP surfaces are modified or improved to establish vegetation, potentially introducing other biota, potential exposure and adverse effects to plants, soil invertebrates, and wildlife might result, or if the HLPs are altered to provide habitat for birds and mammals, further risk analysis would be needed." The result is that ecological risk assessment will be an important tool for ET cap design. For example, since burrowing animals are part of that risk and are significant risk to releases into the food chain, it is unknown how two feet of cover will provide adequate protection. Adding to this the comments above regarding plant uptake and root depth.	**NDEP Response:** Design comment will be considered during design discussions and decision making. A SLERA has already been conducted. Changes inherent in the current HLPs as part of the remedial design will likely include evaluations of various cover types, thicknesses and vegetation types. **BLM Response:** Thank you for your comment **EPA Response:** Design question, how to design cap so it doesn't have adverse eco impact (contaminate the plants and animals). **Draft Proposed Response:** The HLP cap for the preferred alternative will be a minimum of 2 feet thick. The exact thickness and material composition will be engineered during the remedial design phase to meet the required protectiveness. The HLP vegetative cover species will be selected to (1) have a shallow rooting depth in order to minimize root penetration into HLP material; (2) have a low soil to plant bioaccumulation potential; and (3) not be a preferred species for wildlife consumption. In addition, site access restrictions will render the human health plant consumption pathway incomplete. These factors associated with the vegetative cover will result in no adverse impacts to human and ecological receptors.
38	Plants and agriculture	The document states that "Agricultural products grown in the area have been tested and there is no evidence that OU-8 or the Anaconda Copper Mine Site has had any impact on agricultural production. Most agriculture fields in the Mason Valley are located away from the Anaconda Site, either hydrologically up-gradient or not hydrologically	**NDEP Response:** These comments are not really pertinent to the PP and OU-8. They are much more relevant to OU-1, which is where agricultural crop investigations should be focused, and uranium and other COCs' uptake by various plants and edible crops. **BLM Response:** BLM made similar comments to the language used in

		connected to the Site at all" on page 6. This statement is incorrect: 1. Agricultural fields are adjacent to the site 2. Agricultural fields are downgradient from the site 3. Irrigation water used on the fields (Honeywell Ranch Well) has been found to be contaminated with mine waste resulting it its use discontinued. Other irrigation wells are in an area of groundwater known to be effected. The only other evidence for this conclusion (no impact to agriculture) known to the Tribe is the results of a January 9, 2009 Technical Memorandum (Onion Sampling, Peri Farm, Yerington, Nevada, prepared by CH2M Hill) regarding the issue of farm products from a single field adjacent to the mine. In that report, a total of four onions were analyzed for uranium. Results showed relatively low levels of uranium (the only analysis conducted) although uranium was found in all samples in a wide range of concentrations. The onions themselves had already been packaged for processing and/or distribution in fields near the site prior to sampling (placed in "field bags" for the processor). Contrary to the report title, the onions may or may not have been from an area near the mine or even irrigated with groundwater due to use of Walker River water by the farm in question and their use of other properties extending beyond Mason Valley. The 2009 study states that "the technical approach to onion sampling was not meant to be a standard, statistically-defensible approach". The small and limited study does not include the other mine-related heavy metals or radionuclides, other crops in the area or even those regularly irrigated with the groundwater in question. The field used for the study is preferentially irrigated with surface water from the Walker River. The focus and results of the study indicated that onions from that producer did not contain concentrations of uranium of a concern for human health. This result is not disputed, only its broader application to other locations, crops and heavy metals and radionuclides released from the mine site. Multiple peer reviewed studies have determined that onions uptake	the PP, but were dismissed. The rest of the comment is outside the scope of this document and should be made on OU1. **EPA Response: "**This statement is incorrect:": -> Disagree. We said "most," not all. -> Statement in PP doesn't say none are adjacent or downgradient. -> Acknowledge that requiring discontinuation of use of an irrigation well can be considered to be an impact on agricultural production. Are other agriculture wells in the area affected? CBI look into it. -> The off-property agricultural areas area not part of OU8 and are not addressed by this OU PP/ROD. Commenter notes limitation of onion sampling. Agencies acknowledge limitations. Agencies not aware of any other studies performed or evidence presented to substantiate any claims of impact to agricultural products. **CB&I Response:** We have yet to review documentation on other agricultural wells in the area. **Draft Proposed Response:** The off-property agricultural areas are not part of OU8 and are not addressed by this Proposed Plan. Also groundwater use or the potential for use for irrigation purposes is part of OU-1 (Site-wide Groundwater) and/or OU-7 (Wabuska Drain), and should be addressed in those contexts. The referenced language in the Proposed Plan states that most of the agricultural fields are located away from the site, either up-gradient or not hydrologically connected, but not all. Also the Agencies acknowledge that requiring discontinuation of use of an irrigation well can be considered to have an impact on agricultural production. Finally the ROD will be revised to acknowledge limitations of the January 9, 2009 Technical Memorandum (Onion Sampling, Peri Farm, Yerington, Nevada, prepared by CH2M Hill), as the relatively low

		uranium far less than other common crops (Saric 1995, Dushkenov 1997). Other crops grown in the area such as alfalfa and crops planned for the area such as lettuce have both been found to uptake uranium (Ebbs 1998, Saric 1995, Dushkenov 1997). The same research indicates that uranium was found to be highest in leaves, particularly older leaves, and lowest in storage organs such as corn cobs and grain (0.04 and 0.05 mg/kg U), bean pods and seeds (0.07 and 0.02 mg/kg U) and onion bulbs (0.07 mg/kg). The tops of the onions for the EPA study were actually removed and not analyzed despite being an edible portion of the plant. Overall, previous research has clearly indicated that onions are one of the poorest indicators of uranium uptake. The absence of uranium in onions does not correlate to other plants. Additionally, onions would be a crop recommended for agricultural areas managing uranium issues to limit uptake in plants. The second question for this study is the use of uranium as an indicator for other metals released from the site. Arsenic, copper and other metals are noted for concentrations above standards in groundwater associated with releases from the mine that includes groundwater used for irrigation. It is interesting to note that uranium is not associated with uptake in onion bulbs but other metals associated with site, arsenic has been associated with preferential uptake in similar plant structures: radish hypocotyls (Gaw 2008). When plants are grown in soils containing arsenic, cadmium, copper and uranium accumulation is expected to be highest in leaves compared to storage organs such as onion bulbs (Gaw 2008, Saric 1995). In summation, it is not clear from the literature reviewed if uranium would be an effective indicator for other mine waste constituents known to have been released from the site. Considering past research, it must be concluded that uranium alone is not an appropriate indicator of the effects the site is having on local agriculture. This is particularly important since historical releases to surface water and from dust storms prior to recent dust control measures may have resulted in elevated concentrations in soil (Figure 4, Figure 5, and Figure 6). No data on soil concentrations was included or discussed in the 2009 EPA study and no analytical data on irrigation	uranium concentrations measured in onions may not be similarly low in other agricultural crops.
39	Cap thickness	For Alternative 3, which includes a 4-foot cover, it is described as: "This alternative more closely approaches mine closure practices under the Nevada Administrative Code. The new FMS facilities would meet State of Nevada ARARs and combined with the HLP covers would provide a reasonable chance of meeting state ARARs for groundwater protectiveness. This alternative would likely comply with HLP closure requirements. Full compliance with all ARARs would depend on the effectiveness of the ET cover and condition of existing HLP liners and portions of the FMS." The 2-foot cover is described as: "This alternative is consistent with similar HLP closures recently approved by NDEP under the Nevada Administrative Code. The new FMS facilities would meet State of Nevada ARARs and combined with the HLP covers would provide a reasonable chance of meeting state ARARs for groundwater protectiveness and HLP closure requirements." The difference is that 4-foot and deeper minimum caps are part of the current practice. It can be assumed that the 4 foot minimum caps exist and have been used regionally. The language is misleading since 2 foot caps may be proposed but 4 foot plus ones are actually in use.	**NDEP Response:** Design comment will be considered during design discussions and decision making. **BLM Response:** Thank you for your comment **EPA Response: "**The language is misleading": -> I fail to see how wording is misleading. **Draft Proposed Response:** The HLP cap for the preferred alternative will be a minimum of 2 feet thick. The exact thickness and material composition will be determined during the remedial design phase to meet the required protectiveness. The language is not intended to be misleading, just not exact until engineering can be performed during design.
40	Stormwater management	The design restriction on page 13 "full compliance with all ARARs would depend on the effectiveness of the ET cover and condition of existing HLP liners and portions of the FMS" is very important to moving forward with the design. The ET cover must be designed around the water balance and to reduce the hazard (including plant uptake and other ecological factors that result in human health risk) and not set to an arbitrary depth. Additionally, the assumption that current liners are fully functional will need to be proven considering their age and history.	**NDEP Response:** Design comment will be considered during design discussions and decision making. To extent possible the OU-8 remedy will function effectively as a standalone stormwater system, while being planned to connect to a site-wide stormwater system. As other OUs move towards remedial design and action site-wide stormwater planning will be implemented. **BLM Response:** Thank you for your comment

		Management of stormwater is very important and its specific mention in this proposed remedy is a step forward for the site. However, to be realistic, it must connect to a site wide program that will need to be designed and implemented in the short term. Considering both the actual science available for uptake of uranium in onions and the absence of data on other heavy metals and radionuclides released by the site, it is very clear that EPA is overstating the application of the January 9, 2009 study in the Proposed Plan. It is also noteworthy that the Tribe has repeatedly asked for realistic studies of the effect of the mine on agriculture concurrent with effects on other plants collected by Tribal members (Attachment 1).	**EPA Response: "**not set to an arbitrary depth": -> agree. "current liners are fully functional": > Reasonable question. Thoughts? Address in RD? Ways to monitor? Second paragraph: -> same response as before re: stormwater. **CB&I Response:** Yes, we agree that questions of the existing liners and functionality should be deferred and addressed during design. Gross functionality can be evaluated by comparison to historical drainage and the drainage of the other liners. **Draft Proposed Response:** The design comment regarding the functionality of the current liners will be addressed during design. A site-wide stormwater system will be implemented in phases. The OU-8 system will be designed for standalone stormwater protection. The systems for the other operable units will be connected as they approach remedial design and action.

RESPONSES TO REVIEW COMMENTS
Proposed Plan for Operable Unit 8
Anaconda Copper Mine
Lyon County, NV
Date: November 2016

Responses to Yerington Community Action Group Comments, dated December 14, 2016
General Comments

Item	Topic	Comments	Responses
41	Cap thickness	We understand, even with the site being placed on the NPL, money is an issue. We are taking the cost for the remedies into account and realize the State of Nevada will have responsibility for 10% of the cleanup costs. We do not want to see Alternatives #one or # two. We do not see either of them as valid to protect human health or the environment. Alternative # three: We favor using the four foot cover for the heaps. We believe the added thickness would add protection. We do not favor this alternative because it does not have a plan to deal with the stormwater management. Alternative #four: Seems to be the best option in regards to cost and effectiveness. We are concerned with some of the issues with this alternative.	**NDEP Response:** Thank you for your comments. Cover thickness and stormwater management will be discussed more during the design phase prior to final decision making. **BLM Response:** Thank you for your comment **EPA Response:** Could briefly say that additional thickness beyond 2' is likely, as 2' is minimum thickness … Exact thickness TBD is design. **Draft Proposed Response:** The HLP cap for the preferred alternative will be a minimum of 2 feet thick. During remedial design, the required protectiveness may result in the specification of a thicker cap.
42	Alternative selection	We do believe that the big problems concerning this unit of the site will be addressed (for now) using Alternative #4.	**NDEP Response:** Thank you for your comment. **BLM Response:** Thank you for your comment **EPA Response:** Response not provided. **Draft Proposed Response:** Thank you for your comment.

Responses to Yerington Community Action Group Comments, dated December 14, 2016
Specific Comments

Item	Topic	Comments	Responses
43	Cap thickness	We are concerned with using only the 2 foot cover. We would request there be a moisture sensor installed under the cap to make sure this is adequate. We also want to make clear that the VLTs would not be used as a cap. We know in the past they were being considered and then found to be a continuing source of contamination. We are concerned with the vegetation used to cover and stabilize the cap. We have been assured only native grasses with root systems that spread will be used to protect from a root system that would break through the cap and go deeper into the contaminated portion of the heaps.	**NDEP Response:** Design comment will be considered during design discussions and decision making. Design comment will be considered during design discussions and decision making. Thank you for the comment. **BLM Response:** Similar comment as before Thank you for your comment **EPA Response:** First paragraph: -> same response as earlier … re: monitoring cap effectiveness etc. (YPT I think?) Second paragraph: -> CCP somewhat discussed sources for cap. Say something like … examined various sources in CCP … design decision … all options open to consideration. Third paragraph: -> same response as WRPT and YPT re: root systems. **Draft Proposed Response:** The use or not of moisture sensors will be evaluated during the remedial design phase. Various source materials for the HLP caps were considered in the focused feasibility study. All options will be open for consideration during the design phase. The HLP vegetative cover species will be selected to (1) have a shallow rooting depth in order to minimize root penetration into HLP material; (2) have a low soil to plant bioaccumulation potential; and (3) not be a preferred species for wildlife consumption. In addition, site access restrictions will render the human health plant consumption pathway incomplete. These factors associated with the vegetative cover will result in no adverse impacts to human and ecological receptors.
44	Dust control	We are also concerned with the use of modified evaporation. In the	**NDEP Response:** Not during the SPS pilot study in 2016. Careful

		past, spraying on the site did result in releases to neighboring properties. There is continued dust seen blowing on the site. We would request air monitoring to resume if there is any spraying used to enhance evaporation.	application methods and rates are appropriate for control. Design consideration. Closure methods will be designed and constructed to minimize Aeolian transport. Post-construction monitoring is typically required and may include air monitoring. **BLM Response:** Thank you for your comment **EPA Response:** Agency response. EE not part of selected remedy. Agencies see EE as potential tool … for use until remedy implemented … **Draft Proposed Response:** Enhanced evaporation is not part of the selected remedy, but may be a useful tool until the remedy is implemented. Any enhanced evaporation applications will be applied in such fashion to minimize airborne transport.
45	Stormwater management	We do see stormwater running off the site during heavy rain events. We hope there is a comprehensive stormwater plan to address this issue.	**NDEP Response:** We agree, and this will be addressed as other OUs enter remedial design and construction phases. **BLM Response:** Thank you for your comment **EPA Response:** Same response as before (YPT) **Draft Proposed Response:** A site-wide stormwater system will be implemented in phases. The OU-8 system will be designed for standalone stormwater protection. The systems for the other operable units will be connected as they approach remedial design and action.
46	Listing deferral	Is there still a possibility of the State deferring the listing? We are concerned because we have heard this is still on the table. How would this affect the cleanup of OU 8 moving forward?	**NDEP Response:** We are collectively discussing this alternative to NPL funding for many reasons. Deferral would only be approved once agreements are in place that require OU-8 remedial actions effectively similar to and during same timeframes as currently planned under the NPL path closure. Keep in mind, that NPL funding is not guaranteed, especially under the new Administration.

			BLM Response: If the NPL is deferred, the BLM will still remain as land manager for the public lands portions of the Site. BLM cannot surrender its CERCLA authority and would retain its remedy selection authority. BLM will ensure that the remedy selected for OU8 will be implemented and monitored for its effectiveness. **EPA Response:** Agency response. - Current status … - affect cleanup … funding source … lead agency would remain NDEP. **Draft Proposed Response:** Currently, the site is proposed for listing on the NPL. The NDEP, EPA, and BLM have been discussing NPL deferral to a state listing, primarily to provide future funding. NDEP would become the lead agency. Deferral would only be approved once agreements are in place, which require OU-8 remedial actions consistent with recommendations in the ROD and implemented during the same timeframes as currently planned under the NPL path forward. If the NPL is deferred, the BLM will still remain as land manager for the public lands portions of the Site. BLM cannot surrender its CERCLA authority and would retain its remedy selection authority. BLM would ensure that the remedy selected for OU8 would be implemented, maintained, and monitored for its effectiveness.

Responses to Great Basin--Susan Juetten Comments, dated December 21, 2016
General Comments

Item	Topic	Comments	Responses
47	Cap thickness	I am concerned that the Preferred Alternative will not meet the desirable objective of a permanent solution. The thickness of the ET soil cap suggested is "a minimum of 2 feet". This depth may not be sufficient to achieve a reduction in toxicity mobility and volume on the heap leach pads; though the document states that this is the standard in Nevada for HLP closures, the HLPs are exceptionally toxic here, toxic mobility will have an unacceptable impact on an essential aquifer, and it will be penny-wise and pound-foolish to settle for a lesser degree of remediation ("...soil cap will prevent as much precipitation as possible..."), when a greater depth of soil cap will do the job more thoroughly, and allow a plant community to grow up which will be less likely to reach down into the toxic substrate and more likely to thrive.	**NDEP Response:** Design comment will be considered during design discussions and decision making. **BLM Response:** There is no evidence supporting the notion that thicker caps are always better. If a 2-ft cap can obtain the same protective results as a 4-ft cap, then it is economically feasible and justifiable to select a less expensive design that will achieve the same outcome. **EPA Response:** Same response re: cap thickness as earlier **Draft Proposed Response:** Two feet is the minimum thickness that will be considered for the cap. This minimum thickness was selected because it has been found to be effective and to meet the performance standards provided in the state regulations at similar sites in Nevada. The actual thickness will be determined during the remedial design phase. HLPs must be stabilized in accordance with NAC 445A.430, "Stabilization of Spent Ore" which provides both performance standards for effluent discharged from spent ore and requirements to meet anti-degradation policy/protection for waters of the state. These requirements are consistent with the CERCLA criteria for reducing toxicity mobility and volume of contaminants from the HLPs. During the design, the properties of the cap material such as soil type, permeability, and compaction as well as the contaminant characteristics will be reviewed to determine the appropriate thickness to address the mobility of the contaminants. As stated on page 22 of the CCP "Unsaturated cover infiltration modeling should be performed, or other cover assessment methods should be used, to determine the most appropriate final cover thickness based on available soil borrow materials, while minimizing infiltration and draindown through the HLPs."
48	Cap	Please consider increasing the depth of the soil cap to a minimum of 4	**NDEP Response:** Design comment will be considered during design

	thickness	feet on OU8 HLPs.	discussions and decision making. **BLM Response:** Thank you for your comment **EPA Response:** Same response re: cap thickness as earlier **Draft Proposed Response:** As discussed in Response to Comment 47, the thickness of the cap will be determined during the remedial design.

Responses to Great Basin Resource Watch, dated December 20, 2016
Specific Comments

Item	Topic	Comments	Responses
49	Alternative selection	Great Basin Resource Watch has reviewed Proposed Plan to cleanup Operable Unit 8 (OU-8). Alternative 4 is in our view the best and really only option that was presented at the December 12, 2016 public hearing in Yerington, NV for remediation of the Arimetco portion of the Anaconda Mine site. However, we do see significant deficiencies in this alternative, and strongly recommend and additional alternative added that is more in line with Alternative 8 in the draft and final feasibility studies.[1] [1] a) U.S. Environmental Protection Agency, Region 9, "Draft Final Feasibility Study for Arimetco Facilities Operable Unit 8 Heap Leach Pads and Drain down Fluids, Anaconda Yerington Copper Mine Yerington Nevada," May 2012; b) "FINAL FEASIBILITY STUDY FOR ARIMETCO FACILITIES Operable Unit 8 Heap Leach Pads and Drain-down Fluids Anaconda Copper Mine Lyon County, Nevada, October 2016.	**NDEP Response:** We considered many options prior to proposing Alternative 4 and believe it offers the necessary protection and risk reduction while achieving cost effectiveness. Possible variations to the current proposed alternative will be considered during design discussions and decision making. **BLM Response:** Thank you for your comment **EPA Response:** Lookup alt 8 of FS. What are they asking for? **Draft Proposed Response:** As stated on pages 8 and 10 of the Proposed Plan, Alternative 8, presented in the EPA "Draft Final Feasibility Study for Arimetco Facilities Operable Unit 8 Heap Leach Pads and Drain down Fluids" is presented in the Proposed Plan as Alternative 3. The description of the alternative has been generalized for the understanding of the general public. A cross-reference to the FS alternative is provided for those seeking more detail as the FS is available in the administrative record. The preferred Proposed Plan alternative (Alternative 4) is consistent with the 2016 Final FS Alternative 6A/8A (2016). Most of the components of FS Alternative 8 have been incorporated into Proposed Plan Alternative 4. The thickness of the cap has been changed from a set thickness of 4 feet to a minimum thickness of 2 feet to allow for analysis of site conditions and contaminant characteristics in the engineering design and determine the optimum thickness. This alternative also provides modifications to the fluids management system (conversion of ponds to evaporation cells) and provides a storm management system for the operable unit which will tie into a site-wide system in the future. This includes stormwater management on and around the HLPs. The regrading of the HLP slope has also been modified from 1.5:1 to 2.5:1 in the preferred alternative. This is a conceptual plan presented in the FS which will be optimized and may be modified in the final design.

NDEP 50 Response: Agreed, that is why the HLPs need to be completely covered, with stormwater facilities incorporated to ensure infiltration is minimized and human health and the environmental are protected.	Remedial design	Even though the average annual precipitation is low for the Yerington area significant torrential precipitation events often occur, which can result in infiltration into the HLP's. In addition, snowfall is common, also resulting in a springtime infiltration. Containment of the toxins in the HLP's is essential for the long-term public health of the Yerington area.	**BLM Response:** Thank you for your comment **EPA Response:** Technical question re: effectiveness of cap in preventing infiltration. Say something about how cap acts to prevent infiltration. **Draft Proposed Response:** Agreed. Suitable materials for the cap and proper installation and compaction of a complete cover over the HLPs are necessary to minimize infiltration. The preferred alternative also includes stormwater management to control the runoff of precipitation on and around the HLPs.
51	Cap thickness	Given the level of contamination present in the drain down fluids from the Heap Leach Pads (HLP) it is essential that best effort are made to cap the entire surface and prevent water infiltration through the pads that could eventually reach groundwater. The "Proposed Plan for Operable Unit 8" states, "Although the cover is a minimum of 2 feet thick, the thickness is consistent with the current practices for HLP closure in Nevada and is considered effective and permanent."[2] GBRW acknowledges that a 2 foot cover is sufficient at many mine sites in Nevada where reclamation involves a much less toxic facility, but in the case of the anaconda HLP's the 2 foot cover for the Heap Leach Pads (HLP) is woefully inadequate. The Great Basin plants tend to develop quite deep root systems seeking water. Only the most superficial grasses will not penetrate below 2 feet. Due to the severe	**NDEP Response:** Design comment will be considered during design discussions and decision making. **BLM Response:** Thank you for your comment **EPA Response:** Same response re: cap thickness, root zones. **Draft Proposed Response:** A key factor in the design of an effective cover is the mobility of the contaminants which will be contained. A contaminant can be toxic, but may have a low migration potential. During the design stage, the permeability of the capping materials, precipitation rates, and chemical characteristics (including mobility and toxicity) of the materials contained will be evaluated to determine the appropriate thickness of the cover.

		toxicity of the OU-8 HLP's it is important that plants minimally or do not penetrate below the cover material layer.	Also, see Response to Comment No. 47 concerning additional discussion for thickness of the cover.
52	Plants and agriculture	A stable plant community is critical to the long-term reclamation of the HLP's. A variety of grasses and brush will need to be established including include sage and rabbit brush, for example, which are deep rooted plants. Many of the desired plants will most likely penetrate below the 2 foot cover and either die due to low pH conditions or excessive uptake of soluble toxins. Those plants that do penetrate the cover and survive will then draw these toxins from the HLP resulting in widening the contamination zone through seed and plant mater dissemination from wind or uptake by foraging animals. GBRW even questions whether 4 feet cover will be sufficient, since Great Basin phreatophytes will tap deeper than this.[2]	**NDEP Response:** Design comment will be considered during design discussions and decision making. **BLM Response:** Thank you for your comment **EPA Response:** Technical response re: plant cover needing stable plant community etc. … requiring plant variety etc. … deep rooted plants … Same as other cap comments re: cover plants **Draft Proposed Response:** See response to Comment No. 1. If the selected vegetative cover species does not perform as expected, this will be addressed during the Five Year Review, or sooner.
53	Cap thickness	There seemed to be a change in the analysis from 2011 to 2016. The draft feasibility study only analyzed 4 foot cover/capping, whereas in the more recent analysis a hybrid alterative, 6a/8a, was proposed that reduced the cover to 2 feet, which clearly represents a lower level of reclamation and is less protective. In terms of "Overall Protection of Human Health and the Environment" the draft and final feasibility studies state that, "The degree of protectiveness for Alternative 8 is considered to be higher than the other alternatives."[3] Thus, this alternative should have been presented to the public, and a clarification as to why Alternative 8 is not preferred. The final feasibility study does indicate that cost maybe the reason for dropping alternative 8, which states, "Based on the stated RAOs/GRAs, implementation of a combination of Alternatives 6 and 8 to facilitate diversion of as much precipitation from the heap leach pad fluid management systems as possible is the most effective way to reduce draindown flows and associated management costs."[4] Given that the clean-up of OU-8 will be with public dollars for public protection, the public should be given the details so it can weigh in on whether the additional costs associated with a thicker cover is worthwhile.	**NDEP Response:** Incorrect; the 2012 Draft Final FS analyzed a 2' thick cover in Alternative 6 as well as a 4' thick cover in Alternative 8. Alternative 3 (FS Alternative 8) was evaluated and presented in the PP and in the public meeting, and it was explained why that was not the preferred alternative. **BLM Response:** Similar comment as before Thank you for your comment **EPA Response:** FS Alt 8, as commented earlier. Respond together. What is difference between Alt 8 and our final Alt 3? Look it up. **Draft Proposed Response:** In both the draft FS (2012) and the Final FS, Alternative 6 included a 2-foot cover and Alternative 8 included a 4-foot cover. Proposed Plan Alternative 3 (FS Alternative 8) was evaluated and presented in the PP and in the public meeting, and it was explained why that was not the preferred alternative. As discussed in Comments 47 and 51, the two-foot thickness is considered a minimum thickness. The final thickness of the cover will be determined in the design and will consider all pertinent factors such as the characteristics

		[3] Final Feasibility Study (ref 1b), p. 5-24.	of the cover materials and the mobility and transport of contaminants.
54	Stormwater management	GBRA is also concerned that there is not an overall stormwater plan for the entire site. We support a system to help direct precipitation from off the HLP's and other facilities, but it should be part of an integrated stormwater management plan.	**NDEP Response:** A site-wide stormwater system will be implemented in phases as other operable units undergo remedial action. The OU-8 system will be designed for standalone stormwater protection, and so that it will connect with other OUs' stormwater systems as they approach remedial design and action. **BLM Response:** Similar comment as before Thank you for your comment **EPA Response:** Same response re: Site-wide stormwater management plan. **Draft Proposed Response:** The proposed stormwater management system for OU8 will function independently until it can be connected to a site-wide system. A site-wide stormwater system will be implemented in phases as other operable units undergo remedial action. The OU-8 system will be designed for standalone stormwater protection, and it will connect with other OUs' stormwater systems as they approach remedial design and action.

RESPONSES TO REVIEW COMMENTS
Proposed Plan for Operable Unit 8
Anaconda Copper Mine
Lyon County, NV
Date: November 2016

Responses to Atlantic Richfield Company Comments, dated December 21, 2016
General Comments

Item	Topic	Comments	Responses
55	Site-wide closure strategy	Comment G1: Coordinated Response. Implementation of the OU-8 remedial action should proceed in coordination with remedial action in adjacent portions of OU-3, OU-4a, and OU-5 to maximize efficiency of material handling and reduce the need for multiple mobilizations. Some examples of how this recommended coordinated closure approach would occur include: (i) Export excess HLP material made available from down-grading of the Phase III-South HLP into OU-3 for use in in filling/covering the OU-3 concrete vaults and the adjacent OU-8 Mega Pond. Both areas can be lined, graded, covered, and closed together as a single closure management unit. Also export excess material from down-grading of the Phase III-South HLP to the adjacent Phase III-4X HLP to achieve desired side-slope conditions. (ii) Import material from the OU-5 W-3 and S-23 waste rock areas into OU-8 to provide fill, achieve desired side-slope conditions, and provide a working base for installing cover material on the Phase I and Phase II HLPs. Concurrently export material from re-grading of the W-3 waste rock area (to 3:1 slopes) to serve as cover material on infrastructure within the southern portion of OU-3. Construct fluid management and stormwater management ponds associated with the HLPs within the flat space created from the re-graded W-3 and W-23 waste rock areas. Close the entire area, encompassing the Phase I/II HLPs, W-23, W-3, and South OU-3 process area, as a single closure management unit. Additional synergies can be identified as the RI/FS work is completed for the other operable units.	**NDEP Response:** Agreed. NDEP prefers a more holistic, site-wide closure strategy to maximize efficiency. Design comment to be considered during design discussions and decision-making. Design comment to be considered during design discussions and decision-making. **BLM Response:** The BLM is open to the idea of maximizing efficiency during cleanup activities. However, some of these comments/suggestions may be outside the scope of this document. In order to implement these suggestions, all other mentioned OUs would need to be far enough along in the CERCLA process to capture this as an alternative remedy. **EPA Response:** Whereas that would be great … timing … urgency of OU8 … impractical … **Draft Proposed Response:** The agencies recognize that coordination of the remedial action at OU8 with actions at other OUs could maximize closure efficiency, but because of the urgency to complete closure actions at OU8, coordination with actions at these OUs will be considered and discussed as long as protectiveness of human health and the environment are ensured. Addressing coordination of OU schedules is outside of the scope of the Proposed Plan, but can be considered during design discussions and decision-making.
56	Remedial design	Comment G2: Construction Sequencing. Remedial action in OU-8 (and in adjacent portions of other operable units) should be sequenced to take maximum advantage of the efficiencies derived from fewer	**NDEP Response:** Design comment to be considered during design discussions and decision-making. Site-wide closure sequencing is preferred to gain efficiency.

		mobilizations and utilization of on-site materials for filling, contouring, and capping. Construction of new evaporation ponds associated with the Phase I, II, III-South, III-4X, and IV-Slot HLPs should occur first. Grading and capping should occur next for these HLPs, in coordination with closure activities for adjacent portions of OU-3 and OU-5 (as discussed above). Grading and capping of the Phase IV-VLT HLP should be coordinated with later closure work in the adjacent OU-4a area (including the Finger Ponds, Thumb Pond, and Lined and Unlined Evaporation Ponds).	**BLM Response:** The BLM will take issue with any proposed earthwork that would add contaminated material on to public lands or possibly create a release of contaminates from or on to public lands. BLM is tasked with minimizing its environmental liability for all public lands portions of the Site. **EPA Response: "**Construction of new evaporation ponds": -> not sure why they propose new evaporation ponds. Can say that none of the alternative included construction of new evaporation ponds. Re: other OU sequencing, same response as above. **CB&I Response:** They must be referring to the new concrete basin in Alternatives 4 through 8 of the FS. However, the new basin is not in Alt 6A/8A (Alt 4, the preferred alternative in the PP). **Draft Proposed Response: The agencies that sequencing adjacent OUs remedial actions with OU-8 remedial actions is more efficient and economic. Currently, none of the adjacent OUs are far enough along in the CERCLA RI/FS process to meet critical OU-8 priority closure deadlines.** Other OUs sequencing issues are out of the scope of the Proposed Plan but will be considered during the design and remedial action planning phases. into reiterate, the Response to Comment No. 55, completion of the OU8 remedial action is considered a priority, and coordination with actions for other OUs may be considered if the OU is on a similar remedial action schedule as this OU. Actions at OU8 will not be delayed, unless there is a more comprehensive closure approach that is more efficient while remaining protective of the environment.
57	Remedial design	Comment G3: Regrading and Expanded Footprint. Re-grading plans for the HLPs should allow for greater push-down of HLP leach material or over dumping with imported materials, which will result in an expanded footprint in certain areas to achieve desired side slopes and to provide more manageable cap areas and working space. This will improve implementability, since the need for relocating material up-slope onto the top of HLPs will be reduced; and more gradual side	**NDEP Response:** Design comment to be considered during design discussions and decision-making. **BLM Response:** Same as above response **EPA Response:** Technical response. What does JC think? (see also below)

		slopes (3:1 rather than 2.5:1), which will facilitate cover installation, may be accommodated. For example, designs should provide for push-down of material on the east-facing slopes of the Phase III-South and Phase III-4X HLPs and the east-facing slope of the Phase IV Slot HLP towards the south and east, respectively. In some cases, materials derived from OU-8 facilities may need to be pushed-down or otherwise moved outside the designated OU-8 boundaries to achieve design specifications and the desired construction efficiencies. Mining materials (spent ore) may be considered for use or disposal outside of permitted containment if determined not to pose a threat to surface water or groundwater in accordance with guidance issued by the Nevada Bureau of Mining Regulation and Reclamation ("NBMRR").[1]	"Mining materials (spent ore) may be considered for use or disposal outside of permitted containment if determined not to pose a threat to surface water or groundwater": -> I don't know about this. I think it would require separate/additional decision-making process. Additional sampling would need to be conducted too. **CB&I Response:** We agree that use or disposal outside of permitted containment in not likely, and would require sampling and separate/additional decision-making process. **Draft Proposed Response:** Any use or disposal outside of permitted containment would require sampling and a separate/additional decision-making process.
58	Drain down fluids	[1] See Comment G4: Fluid Management and Pond Construction. With respect to fluid management, ARC agrees that precipitates in the existing evaporation ponds (including the 4-acre Pond) should be closed in-place to the greatest extent practicable and in accordance with applicable regulatory closure requirements. ARC does not agree, however, that the existing FMS ponds in their current configuration should be converted to E-Cells for long-term fluid management. Instead, drain-down fluids can best be managed by (i) coordinated, phased closure of the existing ponds based on derived fluid drain-down rates, and (ii) constructing new decentralized evaporation ponds as an interim measure or initial step in remedial action implementation, with one pond to be installed adjacent to each of the Phase I/II, III-South, III-4X, and IV-Slot HLPs. Ponds could be constructed in 2018-2019, prior to initiating final grading and capping of the associated HLPs. This will help to ensure continued effective management of drain-down fluids and reduce or eliminate the risk of exceeding FMS pond capacities while the RI/FS, remedy selection, remedial design, and remedial action proceed to completion. By having separate, decentralized ponds associated with each HLP, fluid management strategies can be optimized using passive drainage and without the need for extensive pumping and transfer of liquids, thus increasing operating efficiency. As drain-down fluid rates decrease, ponds would be converted to E-Cells for long-term operations and maintenance at the point that in-	**NDEP Response:** Design comment to be considered during design discussions and decision-making. **BLM Response:** The BLM is not open to constructing new ponds on any of the public lands portion of the Site to help minimize our environmental liability. Constructing additional interim ponds would create more O&M costs and closure costs. **EPA Response:** -> This would perpetuate the hazard of open ponds attracting wildlife … and killing them … requiring continual O&M … to deter wildlife. "constructing new decentralized evaporation ponds": We expect long-term residual drain down … so such ponds would be open for long time. And added cost of building new ponds. "passive drainage and without the need for extensive pumping and transfer of liquids": -> Acknowledge efficiency … but (points made above) **Draft Proposed Response:** We appreciate the comment but the current plan is to continue to use the 4-acre pond as long as necessary and phase in conversion of the remaining ponds to E-cells over several years. As stated on page 25 of the CCP, "recommends maintaining the existing fluid management system until the existing draindown flows

		flow rates drop below 1.5 gpm. Ponds would also be constructed of suitable dimensions and base materials to facilitate solids management while operating in the evaporation mode and efficient conversion to E-Cells at the appropriate time.	are sufficiently low to allow for passive evaporation in all or a part of the existing fluid management system. To develop the post-closure fluid management plan, draindown from each heap leach pad should be measured regularly. At the appropriate time, some or all of the existing ponds should be converted to soil-filled double-lined evaporation cells (E-Cells) with sufficient volume and surface area to store and eliminate through evaporation." In addition, the BLM will require consultation and deliberation to make an informed decision to constructing new ponds on any of the public lands portion of the Site to minimize the environmental liability.. We do acknowledge that the fluid management strategies can be optimized using passive drainage and without the need for extensive pumping and transfer of liquids, and can consider this factor during the design.
59	Drain down fluids	Comment G5. Source(s) of Fluid Generation. The Proposed Plan states (on p. 2) that the "remedy is recommended because it will achieve substantial drain-down fluid reduction by addressing the source of the fluid generation (infiltration of precipitation) through capping the HLPs, which will significantly reduce volumes and flowrates of fluids to manage." This is not entirely accurate. Certainly, regrading, capping, and run-on controls on the HLPs will reduce precipitation-derived infiltration and resulting drain-down fluid discharge rates to some degree. However, there is a substantial reservoir of fluid in the HLPs, which will continue to drain down and discharge regardless of future reductions in precipitation infiltration. It will be important for the evaporation ponds and other fluid management system components to be designed and constructed with due consideration of the volume and projected draindown rates of the residual fluid present within the HLP interstices.	**NDEP Response:** Design comment to be considered during design discussions and decision-making. The goal as stated in the PP is to reduce infiltration to extent practicable and minimize O&M **BLM Response:** Thank you for your comment **EPA Response:** Agencies response. "substantial reservoir of fluid in the HLPs": -> acknowledge substantial reservoir … which is why wording used was "substantial" and "significant" instead of "complete" or "total." "designed and constructed with due consideration of the volume and projected draindown rates": -> agree **Draft Proposed Response:** Acknowledged. As discussed under Response to Comment No. 58, the current fluid management system will continue to operate until levels within the ponds allow for closure or conversion to E-cells. This factor will also be considered during the design with the goal as stated in the PP to reduce infiltration to extent practicable and minimize O&M.

NDEP 10 **Response:** Cost estimates were derived in the CCP utilizing standard reclamation cost estimating tools combined with discussions with local contractors experienced in HLP closures. The cost estimates are at best a Class 4 estimate. During early design discussions, the estimates will need to approach a Class 2 rigor and statistical	Cost and funding	Comment G6. Estimated Costs. The Proposed Plan includes estimated NPV costs for the preferred alternative, but little information is provided concerning how the cost estimates were derived. ARC has carefully evaluated the Agencies' cost estimates and finds them to be well below ARC's own estimates for the OU-8 remedial action. This is due in part to the exclusion of estimated costs for (i) closing the existing 4-acre pond, and (ii) long-term operation, maintenance, and possible replacement of the other FMS ponds. Other items that appear to have been excluded from the Proposed Plan's cost estimates are structure demolition, closure planning, and management of OU-8 surface soils located outside of the HLPs. In addition, some cost items, although included, appear to underestimate likely projected costs (e.g., pond closures and pond construction). Based on ARC's analysis of the Agencies' current closure plan, estimated costs for the preferred remedial alternative are in a median range of approximately $59.6 million.	

validity. Some specific costs may rise while others may drop as efficiencies are gained through more site-wide holistic closure phasing. So, while OU-8 closure costs may rise, adjacent OU closure costs may be reduced, thus producing an overall site-wide closure savings.			**BLM Response:** Thank you for your comment **EPA Response: "**how the cost estimates were derived": -> cost estimate are documented in FS. "well below ARC's own estimates": -> Cost estimate considered +50/-30% degree of accuracy. "closing the existing 4-acre pond": -> CBI, check this out. True? "long-term operation, maintenance, and possible replacement of the other FMS ponds": -> not part of selected remedy. "structure demolition, closure planning, and management of OU-8 surface soils located outside of the HLPs": -> not included in this remedy. Outstanding work to be done in future. **CB&I Response:** Closure of the 4 acre pond is included in the preferred alternative discussed in this comment. It is not included under some of the other alternatives which may have caused the confusion. **Draft Proposed Response:** Cost estimates for the preferred alternative were derived in the Yerington Mine Operable Unit 8 Focused Feasibility Study Conceptual Closure Plan (CCP) utilizing the Standard Reclamation Cost Estimator tools combined with discussions with local contractors experienced in HLP closures. The cost estimates are at best a Class 4 estimate. This is consistent with EPA's requirement that FS cost estimates costs have an expected accuracy range of +50/-30%. During early design discussions, the estimates will be updated to approach a Class 2 rigor and statistical validity. Some specific costs may rise while others may drop as efficiencies are gained through more site-wide holistic closure phasing. So, while OU-8 closure costs may rise, adjacent OU closure costs may be reduced, thus producing an overall site-wide closure savings. The current cost estimate provided includes closure of the 4-acre pond ($1.8 million for including capping the pond, which includes backfilling, grading, installing a liner, installing geotextile fabric, placing 24" of soil, and seeding.) Structure demolition and soils

			management outside the HLPs are not included as these are considered outside of the selected remedy and will be addressed in the future. Long-term operation, maintenance, and possible replacement of the other FMS ponds are also not part of selected remedy. Some costs are presented as net present worth value including conversion of ponds to E-cells and O&M costs. These are detailed in the 2016 FS and the CCP.
61	Stormwater management	Comment G7: Stormwater Management. ARC agrees that integrated stormwater management, including segregation of non-contact stormwater from drain-down fluids, is a key component of the site-wide remedial action. As stated in the Proposed Plan, stormwater management features associated with OU-8 should "be designed and constructed with the long-term objective of connecting to and complementing site-wide stormwater management features in adjacent areas of the site." The design of the OU-8 stormwater basins, ditch networks, and other conveyances should occur as part of the development of the site-wide storm water management plan. This will best ensure that stormwater continues to flow by passive drainage in the intended direction and that stormwater management system facilities will not need to be removed, rebuilt, or redesigned as the remedial action proceeds in other parts of the Site. Stormwater drainage plans need to be consistent with the projected final Site topography in order to avoid costly excavation work and minimize the need for tunneling and active pumping. For example, it may not be possible to direct stormwater collected at the Phase I/II HLPs towards the north, because this area is topographically lower than the intersecting Burch Drive. Also, it appears from Figure 6 in the Proposed Plan that the Agencies' conceptual stormwater management plan will include three non-discharging detention basins (numbers 1, 2, and 4), and one retention basin discharging to the pit. It is unclear whether the detention basins are intended to rely on evaporation, infiltration, or other means for eliminating collected stormwater. ARC recommends designing stormwater management facilities that will allow for sufficient water retention to promote settling and separation of suspended sediments, but also include mechanisms for discharging	**NDEP Response:** Design comment to be considered during design discussions and decision-making. NDEP agrees with the need to carefully consider and evaluate site-wide stormwater control as OU-8 stormwater system is designed and implemented. **BLM Response:** Thank you for your comment **EPA Response: "**The design of the OU-8 stormwater basins, ditch networks, and other conveyances should occur as part of the development of the site-wide storm water management plan." -> same response as earlier re: stormwater management plan. Figure 6: -> Figure 6 is intended as a conceptual depiction of a possible system for illustrative purposes only. "ARC recommends": -> to be determined in RD. **Draft Proposed Response:** As discussed in Response to Comment No. 45, the proposed stormwater management system for OU8 will function independently until it can be connected to a site-wide system. A site-wide stormwater system will be implemented in phases as other operable units undergo remedial action. The OU-8 system will be designed for standalone stormwater protection. Consideration of how this system may connect to a site-wide system will be evaluated during the design stage and as part of the stormwater management plan included under this alternative. Figure 6 is intended as a conceptual depiction of a possible system for illustrative and alternative costing purposes only. Details and modifications will be prepared during the design stage when a more detailed analysis will be performed.

		non-sediment bearing water off-site. This will help to reduce the needed surface area and detention capacity of the ponds, as compared to a system relying exclusively on evaporation for water elimination. In addition, developing a holistic, site-wide stormwater management plan is consistent with the recommended phased approach for the OU-8 remedial action. Addressing the immediate need for stormwater and drain-down fluid management ponds will allow for other aspects to be phased with the broader remedial action in a systematic, cost effective way that is more sustainable over the long-term.	
62	Remedial design	Comment G8, Use of "Evapotranspiration (E/T)" Soil Caps. The Proposed Plan refers in several places to the use of evapotranspiration (ET) soil caps in the OU-8 remedial action. This implies that the Agencies envision seeding and active management of vegetation on the closed/capped HLPs to enhance water removal and reduce infiltration, although this is unclear. Use of non-vegetated covers may be more appropriate given the climatic conditions at the Site. Average annual precipitation is less than 5.2 inches (WRCC-DRI). Annual average pan evaporation exceeds 60 inches (PE, WRCC-DRI Fallon), with variable seasonal wind conditions typically averaging below 10 mph. The climate thus appears suitable for an evaporation-only soil cover alternative. Climate conditions may be too dry to passively support a desirable vegetation habitat, as needed to meet transpiration or erosion control performance goals. Whether ET covers or non-vegetated covers provide the most effective water balance cover method can be resolved at the remedial design stage of remedy implementation.	**NDEP Response:** Design comment to be considered during design discussions and decision-making. **BLM Response:** The ET covers will be 100% effective whether they have a vegetative cover or not. Having a vegetative cover should only enhance ET and help anchor side covers. **EPA Response:** "Use of non-vegetated covers may be more appropriate given the climatic conditions": -> technical response Second paragraph: -> Agree. to be determined in RD. **Draft Proposed Response:** Vegetated covers are used to control dust and prevent runoff and erosion of the cap materials, although maintenance is more challenging in an arid environment. During the design, systems will be evaluated to maintain the vegetation such as irrigation and water retention techniques. As discussed in Response to Comment No. 1, plant species will be evaluated during the remedial design. The agencies concur that cover systems (ET, non-vegetated, vegetated) will be evaluated during the design.

Responses to Atlantic Richfield Company Comments, dated December 21, 2016
Specific Comments

Item	Topic	Comments	Responses
63	Rephrase text	Comment S1: P.3, 1st column, Mine History, 5th sentence: The Proposed Plan states that: "Atlantic Richfield Company (ARC) acquired the Property from the Anaconda Copper Mining Company in June 1978 and terminated mining operations at the Site." This is not factually correct. Anaconda ceased mining operations at the Site in June 1978. Anaconda merged with an ARC subsidiary in 1977 (renamed The Anaconda Company), which was merged into ARC in 1981.	**NDEP Response:** We will consider revising the current language in the PP, or amend it for the ROD. **BLM Response:** BLM agrees with commenter that language should reflect correct timeline of events. **EPA Response:** Second paragraph: -> clarification noted and acknowledged. Should we bother checking our reference or HSR and making a factual response about it? **CB&I Response:** Doesn't quite agree with HSR which states that ARC purchased Anaconda Minerals, including the site in 1977, ARC divested of the site and shut down all mining and process in 1978. NSR doesn't mention the rename to The Anaconda Company and merger into ARC in 1981. **Draft Proposed Response:** The text will be revised as appropriate in the ROD.
64	Drain down fluids	Comment S2: P.3, 2nd column, 1st paragraph, 3rd sentence: The Proposed Plan states that: "The solution drain-down rate decreased from 3,300 gpm during active operation to less than 35 gpm in 2002." These figures appear to pertain only to the Phase IV VLT HLP. Available information suggests that site-wide drain-down flow rate values were unsubstantially higher during this time. Correct estimates of historic drain-down flow rates are important for accurately projecting future, long-term flow rates using applicable modeling techniques and for ensuring proper sizing and design of fluid management facilities.	**NDEP Response:** We will consider revising the historic OU-8 system drain-down rates in the PP, or amend it for the ROD, and we acknowledge the importance of utilizing accurate current drain-down rates for effective closure design. **BLM Response:** BLM agrees with ARC's comment that drain-down rates need to be accurate. Make necessary edits as needed. **EPA Response:** CBI, check into this. Look up in FS what numbers we used, assuming we got PP numbers from FS. Our response should note specific clarification if we agree with them. **Draft Proposed Response:** Agreed. The rates referenced are for the Phase IV VLT HLP. Table 1-2 in the 2016 Final FS provides historic

			and recent drawn-down rates for each individual pond. This table will be included in the ROD.
65	Remedial design	Comment S3: P. 3, 2nd column, 2nd paragraph, last sentence: The Proposed Plan states that enhanced evaporation methods pilot tested by SPS in 2016 "may potentially reduce the fluids and solids in the FMS, providing additional time to secure Superfund or other funding sources for design and construction of the approved remedy." ARC is concerned that enhanced evaporation may increase the leachability of certain constituents from the HLP materials, which could affect the suitability of those materials for use or placement outside of areas of containment under the NBMRR Guidance (see Comment G3, above). These effects should be thoroughly assessed and considered before implementing enhanced evaporation on a larger scale on any of the HLPs.	**NDEP Response:** Design comment to be considered during design discussions and decision-making. **BLM Response:** BLM agrees with comment that if enhanced evaporation is to be considered, that it be further assessed before implementation. **EPA Response: "**These effects should be thoroughly assessed and considered": -> agree **Draft Proposed Response:** The Agencies concur. If enhanced evaporation is considered it will be further assessed during the remedial design.
66	Drain down fluids	Comment S4: P. 3, 2nd column, Drain-Down Fluid Characteristics, 1st sentence: The Proposed Plan states that: "There are currently five ponds collecting hazardous drain-down fluids from the HLPs with a total design capacity of approximately 14.54 million gallons." The current capacity of the VLT Pond, Evaporation Ponds B and C, Phase I/II Pond, and Slot Pond II is actually 10.54 million gallons. The higher fluid capacity estimate stated in the Proposed Plan was presumably determined before the Slot Pond I, the Mega Pond and the Arimetco Process Facility Ponds were closed in 2006.	**NDEP Response:** We will consider revising the current pond capacity in the PP, or amend it for the ROD. We acknowledge this estimate is important for closure design. **BLM Response:** BLM suggest that the pond volumes be recalculated to reflect a more accurate number. **EPA Response:** CBI, fact check this. **Draft Proposed Response:** This information will be corrected in the ROD. However, based on the information in the Final FS (2016), the capacity is 10.9 million gallons compared to the 10.54 million gallons provided by ARC.
67	Site-wide closure strategy	Comment S5: P. 5, 1st column, 1st paragraph, 2nd sentence: The Proposed Plan states that OU-2, OU-4b, OU-5, and OU-6 pose less risk than the "highest priority" OUs (OU-1, OU-3, OU-4a, OU-7, and OU-8), and "work on these OUs will proceed once the priority OUs have finalized the RI and FS, Human Health Risk Assessments, Proposed Plans, and Records of Decision (RODs), and remedial actions have begun." As noted in Comments G1 - G4 above, ARC believes that it is appropriate to begin work in some of the other "lower priority" OUs	**NDEP Response:** NDEP prefers a more holistic, site-wide closure approach to gain efficiency, and that is one of the major reasons we prefer an alternative approach to NPL. With the NPL approach liability divisibility questions will hamper site-wide closure planning and action. Under the NPL alternative approach ARC would be funding all OU remedial action except for 7.8% of OU-8 which would be funded by the State; this approach allows for integrated closure planning, design and implementation.

		sooner rather than later and to coordinate that work with the remedial action proposed for OU-8 for a more efficient and holistic site-wide remedial approach. Again, this will improve overall efficiency, reduce costs, and decrease the time-to-completion for the site-wide remedial action.	**BLM Response:** Thank you for your comment **EPA Response:** Same response as before. **Draft Proposed Response:** Please see Response to Comment No. 55.
68	Human health and environment	Comment S6: P. 6, 1st column, "Is the Site Safe?" 1st paragraph: The Proposed Plan reports on incremental cancer risk estimates and non-cancer hazard indices for exposure to OU-8 HLP materials. These estimates are based on the Human Health Risk Assessment ("HHRA") completed as part of the OU-8 RI/FS. They are derived from highly conservative exposure assumptions and risk estimation methods, and they intentionally overestimate reasonably anticipated exposures and the associated risks. As stated in U.S. EPA's Final Remedial Investigation Report for OU-8 (Sept. 2011) (Section 8.4, p. 8-2): "The screening-level HHRA conservatively estimates potential risks to human receptors. Drain-down solution was compared to drinking water MCLs and tap water PRGs; however, it is not expected that drain-down solution would be ingested. The use of these conservative comparison criteria overestimate the potential exposures and associated risks from drain-down solution." This uncertainty and the associated over-estimation of exposure risk should be acknowledged in the Proposed Plan.	**NDEP Response:** Thank you for your comment. It will be considered along with other comments that indicate the HHRA risks are not conservative enough. **BLM Response:** BLM believes the risk exposure language used in the PP is appropriate and no additional language is needed to address the uncertainty and possible over-estimations. **EPA Response:** Second paragraph: -> Same response as YPT … how purpose of PP is to describe RAs and briefly describe HRA … not provide detailed description … HRA is included in AR … **Draft Proposed Response:** We believe the risk exposure language used in the PP is appropriate. The purpose of the Proposed Plan is to present the preferred remedial alternative. To support that discussion, a summary of the HRA is provided so that the general public will understand the concerns at OU8 that will be addressed by the remedial action. The HRA is available in the Administrative Record for those who would like more detail. A more detailed summary will also be provided in the ROD.
69	Groundwater	Comment S7: P. 7, 2nd column, 1st paragraph, 2nd sentence: The proposed Plan states that: "past releases and potential future releases from OU-8 … also have the potential to contaminate groundwater…." Use of the term "potential" here is not completely consistent with the findings of the RI/FS, which attribute measured groundwater impacts to Arimetco's OU-8 operations. For example, U.S. EPA's "Feasibility Study for Arimetco Facilities, Operable Unit 8" (Oct. 2016) states on page 1-13 that: "Potential areas affected by Arimetco operations include the footprints of each HLP and their associated drain-down FMSs, historical spill areas, and the SX/EW Process Area. On the basis	**NDEP Response:** Thank you for your comment. **BLM Response:** The commenter was selective in paraphrasing to make their point. However, they left out the end of the quote which states, "although the relative contributions from Arimetco versus other Site - related contaminant sources have not been determined." This contradicts the commenter's statement that the RIFS states that there is

		of groundwater monitoring results, these impacts are thought to extend vertically down to groundwater…."	some "measured" GW impacts associated with Arimetco's operations. That measurable contribution still needs to be determined. **EPA Response: "**have the potential to contaminate groundwater" and "Potential areas" and "are thought to": Agencies consider terms … "potential" … "thought to" … to be consistent in the qualified statement made. **Draft Proposed Response:** The full statement from the FS is as follows: "Potential areas affected by Arimetco operations include the footprints of each HLP and their associated drain-down FMSs, historical spill areas, and the SX/EW Process Area. On the basis of groundwater monitoring results, these impacts are thought to extend vertically down to groundwater, although the relative contributions from Arimetco versus other Site-related contaminant sources have not been determined." Because the relative contribution is yet to be determined, the use of the term "measured" in this comment is not accurate. We consider the terms "potential" and "thought to" are consistent with the fact that the contributions have not yet been determined.
70	General	Comment S8: P. 13, 2nd column, Preferred Alternative, 2nd paragraph, 4th sentence: The Proposed Plan states that: "[The preferred Alternative 4] also more closely adheres to NDEP Bureau of Mining Regulation and Reclamation closure requirements and guidance, which are required at active, permitted mines in Nevada." ARC agrees that NBMRR closure requirements and guidance should be used in determining closure requirements and the remedial action design.	**NDEP Response:** Thank you for your comment. **BLM Response:** Thank you for your comment **EPA Response:** Comment acknowledged. **Draft Proposed Response:** Comment acknowledged. BMRR closure requirements and guidance will be consulted during the remedial action design.

Responses to Singatse Peak Services, LLC Comments, dated December 19, 2016
General Comments

Item	Topic	Comments	Responses
71	General	In 2011, SPS purchased the private property at the site with the goal of	**NDEP Response:** Thank you for your comment.

		restarting mining at the Site. To date, SPS has spent over $37M on evaluating the potential to restart mining at the Site and adjacent properties. The statement on Page 3 of the Proposed Plan is incomplete; SPS's plans for the site are not just to evaluate the reprocessing of OU8 and other residuals from previous mining operations. Rather, SPS purchased the assets at the Site with the primary purpose of evaluating the feasibility of restarting mining of the copper resource in the existing open pit as well as the adjacent mineralized areas on or near the existing mine Site.	**BLM Response:** The BLM appreciates SPS desires to re-mine old workings and new mine workings, but until BLM has a Notice of Intent or sees a Plan of Operations to evaluate, there is currently no proposal for doing any mining/re-mining at or near the Site. **EPA Response:** Comment noted. **Draft Proposed Response:** Comment noted. The Agencies appreciate SPS's desire to re-mine old workings and new mine workings, but until a Notice of Intent or a Plan of Operations is provided, there is no official SPS proposal for future mining/re-mining at or near the Site.
72	Enhanced evaporation	One of the risks presented in the Proposed Plan is related to the capacity limitations of the OU8 Fluid Management System (FMS) ponds. Although capacity of the FMS ponds was stated by EPA and NDEP as one of the key issues that led to the desire to list the Site on the NPL, the capacity could be extended through enhanced evaporation. During the 2016 calendar year, with concurrence of EPA and NDEP as well as ARC, SPS voluntarily completed a field-scale pilot study to evaluate enhanced evaporation of the FMS solutions. The pilot test is mentioned briefly on page 3 of the Proposed Plan. The results of the pilot test showed that enhanced evaporation can safely and economically extend the life of the FMS by at least 1 0 years without increasing the volume of solutions in the FMS ponds. The results of the pilot test were reviewed in a meeting with EPA, NDEP and ARC on October 20, 2016 and documented in a final report dated November 25, 2016. Enhanced evaporation could be used to defer the closure of OU8 and other OUs at the site while the EPA, NDEP, ARC, SPS and other stakeholders evaluate alternative options for managing and closing the Site.	**NDEP Response:** Thank you for your comment. NDEP views enhanced evaporation as a potential tool in the overall closure strategy. We recognize the potential benefit of enhanced evaporation, and we certainly prefer that the landowner submit a mining plan sooner rather than later. However, we prefer a more conservative closure schedule that will still allow time for a remining plan to be submitted and considered, while ensuring that HLP infiltration is minimized and human health and environmental risks are decreased. **BLM Response:** The BLM acknowledges that the enhanced evaporation pilot study accomplished the goal of reducing the amount of fluids in the evaporation ponds. However, BLM may not be receptive to replicating the enhance evaporation on any public lands portion of the HLPs until further studies and data is collected. BLM will not support the transfer of contamination from one location to another unless it is a part of a permanent closure plan, especially on public lands. **EPA Response:** The agencies fail to see the purpose of deferring/delaying the heap closure … 15 years … degrading FMS … combine to create urgency … for closure. **Draft Proposed Response:** The Agencies acknowledge that the enhanced evaporation pilot study accomplished the goal of reducing the amount of fluids in the evaporation ponds. However, BLM may not be receptive to replicating the enhanced evaporation on any public

			lands portion of the HLPs until further studies and data is collected. BLM will not support the transfer of contamination from one location to another unless it is a part of a permanent closure plan, especially on public lands. We consider OU8 a priority and plan on continuing our goal to remediate OU8 without further delay. SPS has yet to submit a mining plan which will be needed for consideration of SPS's suggestions in this comment and without impacting the OU8 schedule.
73	Alternative selection	The Proposed Plan for OU8 does not define a specific schedule for implementation of the closure of OU8. Even though SPS generally supports the Proposed Plan as the permanent solution, SPS recommends implementing a phased closure based on the following priorities: 1. FMS capacity needs which could be extended with enhanced evaporation, 2. Efficient integration of OU8 closure with the broader site remedy implementation by ARC, and 3. SPS's ongoing exploration and evaluation of restarting mining. Using these principles to guide the Site activities will lead to an efficient overall site cleanup and allow for continued evaluation of the feasibility of restarting mining at the Site.	**NDEP Response:** Thank you for your comments. Some of these are appropriate for design consideration discussions, and others are more appropriate to other discussions with EPA, BLM, BMRR and ARC. **BLM Response:** Thank you for your comment **EPA Response: "**SPS recommends implementing a phased closure": -> Same response as to ARC re: integrating other OUs. [Integrate response re: urgency to close heaps] **Draft Proposed Response:** As stated in Response to Comment No. 55, while coordination of the remedial action at OU8 with actions at other OUs would maximize efficiency, because of the urgency to complete closure actions at OU8, coordination with actions at these OUs is not necessarily feasible. Each of these OUs would need to be at a similar point in the CERCLA process for the suggested coordinated actions to occur. Addressing coordination of OU schedules is outside of the scope of the Proposed Plan, but can be considered during design discussions and decision-making.
74	Listing deferral	SPS understands that ARC and NDEP are negotiating a formal deferral of NPL listing of the Site. A key component of the deferral is that ARC would pay for the closure of OUB. SPS is conditionally supportive of the alternative approach proposed by ARC and NDEP as long as remediation of the site proceeds in an orderly fashion that allows for future flexibility to restart mining at the Site. As the private landowner and given the development of SPS's plans to restart mining, SPS must be included In all discussions and decisions regarding site remediation and reclamation while such decisions are considered and before any such decisions are finalized. Specifically, but not exclusively, SPS	**NDEP Response:** Thank you for your comment and support of the NPL deferral approach. Again, we intend to keep remining as an option for site-wide closure, and we will keep SPS informed on all decisions that may affect SPS and their future plans, and on all decisions that require SPS access or approval. **BLM Response:** BLM recognizes SPS as the private landowner of the Site, but does not agree that SPS should be included in all discussions and decisions regarding the Site. Until SPS submits a plan for re-mining or mining on public lands, SPS will be considered by BLM as

		must have input regarding plans related to locating potential disposal sites for onsite wastes, use of on-Site soils or other materials which SPS considers assets for capping or other uses, and use of the existing open pit for stormwater management. This list is indicative yet not exhaustive of the types of issues that are important to SPS, the landowner, as it continues to evaluate the feasibility of restarting mining at the Site.	just another stakeholder. **EPA Response:** -> same response as earlier (YCAG?) re: NPL deferral **Draft Proposed Response:** As discussed in Response to Comment No. 46, the NDEP, EPA, and BLM have been discussing NPL deferral to a state listing, primarily to provide future funding. NDEP would become the lead agency. Deferral would only be approved once agreements are in place that requires OU-8 remedial actions consistent with recommendations in the ROD and implemented during the same timeframes as currently planned under the NPL path forward. The Agencies recognize SPS as the private landowner of the Site. Until SPS submits a plan for re-mining or mining on public lands, SPS will be informed along with other stakeholders. Once SPS submits the plans, we will keep SPS informed on all decisions that may affect SPS and their activities, and on all decisions that require SPS access or approval.
75	Mining plan	Singatse continues to maintain that there is no legitimate reason to rush into a listing process, nor is there any legitimate reason to rush into an expensive remedial process regarding OU8. There are mechanisms, such as enhanced evaporation which can effectively and economically extend the life of the FMS thereby allowing adequate time for stakeholders to identify, fund and implement alternatives. SPS respectfully requests a more fulsome opportunity to participate in the planning and evaluation of approaches to remediation at the Site	**NDEP Response:** Thank you for your comment. As stated previously we intend to consider SPS plans and discuss closure options and planning/scheduling with SPS and other stakeholders throughout the process. We reiterate that we prefer a re-mining option for closure if the mining plan can be submitted timely and coordinated with our current closure schedule to ensure human health and the environment are protected and risks minimized. **BLM Response:** BLM is no longer willing to sit idle waiting for someone to submit a mine plan that can be evaluated and approved that would address and bond for all the cleanup costs. The BLM doesn't consider twenty years "rushing" into anything. The BLM and EPA are following the CERCLA process to reach a remedy selection. **EPA Response: "**rush into a listing process": -> Response used before for same commenter re: urgency for action. Maybe could add this comment to the previous one that raises the urgency comment. "to identify, fund and implement alternatives": -> The OU8 RI/FS process was the process that identified alternatives.

			Draft Proposed Response: See Response to Comment Numbers 73 and 74.